

CPSC-IAG-01-1173

6/12/01
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INTERAGENCY AGREEMENT
BETWEEN THE
U.S. CONSUMER PRODUCT SAFETY COMMISSION
AND THE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

I. INTRODUCTION

The U.S. Consumer Product Safety Commission, hereinafter referred to as CPSC, and the National Institute of Standards and Technology, hereinafter referred to as NIST, hereby agree that NIST shall provide the technical support for and develop a small-scale fire screening test for mattresses and provide the subsequent findings to CPSC, in accordance with the terms and conditions set forth below. This IAG will allow CPSC staff to carry out its obligations in areas of standards development for regulatory purposes, compliance and enforcement.

II. TITLE:

"Mattress Fire Screening Test"

III. PURPOSE AND OBJECTIVES:

The purpose of this project is to develop a test methodology to evaluate mattress flammability in which the peak fire size during testing is reduced to a level that can be handled by a typical overhead laboratory fume hood and the performance measures correlate directly with full-scale mattress fire testing behavior.

The objectives of this project are:

- A. To develop a screening test methodology that could be used for product development and enforcement of mattress flammability standards;
- B. Provide a methodology that provides measures of mattress performance which correlate directly with full-scale heat release behavior.

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IV. BACKGROUND:

Fires in which a mattress or bedding article is the first item to ignite are responsible for a major portion of the nation's fire casualties. Among the consumer products within the jurisdiction of the CPSC, mattress and bedding fires were one of the leading causes of civilian injury and second only to upholstered furniture in the number of civilian deaths in 1998. In 1998, mattress or bedding items were first to ignite in about 18,100 residential fires that resulted in 390 deaths, 2,160 injuries and \$208.3 million in property damage. Most of these losses could be addressed by an open flame standard for mattresses.

While full-scale tests are considered the definitive performance test, they are dangerous, expensive and require specialized facilities. At present, only a small number of laboratories in the United States are capable of conducting any type of full-scale mattress fire tests. A bench scale test is needed to serve as a surrogate for full-scale tests of mattresses exposed to ignited bedding or equivalent gas burners (similar to those developed in earlier NIST research). A bench scale test is a necessary component of a performance standard and provides a method of testing that is practical and cost effective. Test samples and materials will be the same as those used in earlier NIST research sponsored by the Sleep Products Safety Council (SPSC), an affiliate of the International Sleep Products Association (ISPA).

The following organizations have entered into a cooperative effort to evaluate mattress and bedding flammability:

National Institute of Standards and Technology (NIST);
United States Fire Administration (USFA).

NIST shall provide the technical support and methodology for developing a fire screening test for mattresses.

- A. In order to accomplish the objectives of this investigation, NIST shall complete the tasks listed below:

Task 1. Design and construct all apparatus for the screening protocol.

The screening test will require specialized apparatus adapted to bench scale. NIST will develop all test equipment, including an appropriate gas burner and specimen holders, necessary for test development and evaluation.

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Task 2. Calibrate gas burners and refine all test apparatus to give burning behavior within acceptable heat release rate limits and with good correspondence to full-scale behavior.

NIST will be responsible for making necessary adjustments to test apparatus to ensure equipment is functioning properly and within acceptable test limits. NIST will determine appropriate exposure duration of gas burners.

Task 3. With assistance from CPSC staff, apply test apparatus to multiple samples from SPSC mattress/foundation designs used in earlier research; reduce data and correlate with results from twin size beds based on the same designs. The total number of tests after the test apparatuses are all functional will be as many as 336.

Task 4. Complete report on above test protocol development with technical rationale and assessment of its utility as a screening method for mattress/foundations.

VI. NIST FURNISHED MATERIALS/EQUIPMENT

NIST agrees to furnish all necessary personnel (except as noted in VII), equipment, materials, services, and facilities to complete the objectives list in Section III.

VII. CPSC FURNISHED MATERIALS/EQUIPMENT

CPSC will provide the test materials, given as a gift from the SPSC. Enough test materials will be provided to conduct approximately 600 tests. CPSC staff will assist in testing of large number of samples in Task 3.

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VIII. CONFIDENTIALITY REQUIREMENTS

- A. All information reported to or otherwise obtained by CPSC or its agents under the Consumer Product Safety Act (CPSA) and provided to or shared with NIST, which contains or relates to a trade secret or other matter referred to in section 1905 of title 18, United States Code, or subject to section 552(b)(4) of the title 5, United States Code, shall be held in confidence by NIST personnel.
- B. To the extent permitted by law, including the Freedom of Information Act, NIST agrees not to release the identity of any manufacturer of any product being tested or reviewed (example: ticking materials, foams, barrier fabrics) in conjunction with this IAG without the written consent of the CPSC
- C. All documents and other materials developed pursuant to this IAG shall have appropriate statements to indicate the work was performed pursuant to the IAG by NIST; that the documents and other materials produced are the views of the staff or members (present or past) of NIST; and that although the documents and other materials may have been developed in conjunction with CPSC staff and sponsors, the documents and other materials do not necessarily represent the views of the Consumer Product Safety Commission and other sponsors.
- D. Any publications of or publicity pertaining to, the work performed under this Agreement shall include the following:

"This project was funded by CPSC and the U.S. Fire Administration (USFA). The content of this publication does not necessarily reflect the views of the Commission nor the USFA, nor does mention of trade names, commercial products, or organizations imply endorsement by the Commission or the USFA."

IX. PERIOD OF PERFORMANCE

The period of performance shall begin on the effective date of the IAG and shall not extend beyond 450 calendar days. This agreement may be modified by mutual consent of CPSC and NIST.

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X. DELIVERY OR PERFORMANCE

All deliverables required under the terms and conditions of this IAG shall be provided to Margaret Neily, CPSC Project Officer, regardless of the various sources of funding. The following items shall be performed or delivered in accordance with the following schedule:

DELIVERY ITEM	QUANTITY	PERFORMANCE
A. Monthly progress reports to include, but not be limited to: project status, costs incurred for quarter just ended, problems encountered or anticipated and plans for the succeeding quarter.	4 copies	Within thirty (30) calendar days after the end of each quarter.
B. A draft final report for review and comment.	4 copies	No later than the end of 450 calendar day test period.
C. A final technical report including, but not limited to, test setup, test data, data analysis, conclusions, findings, and methodology of screening test.	16 copies	No later than the end of 450 calendar day test period.
D. Representative photographs and videos of the tests.	2 copies	No later than the end of 450 calendar day test period.

XI. DISAGREEMENTS

In the event that CPSC and NIST have a disagreement arising under this interagency agreement, the parties shall cooperatively seek to resolve the disagreement by themselves. If the disagreement cannot be resolved between them, the parties agree to seek the assistance of a third party in resolving the disagreement.

XII. SCHEDULE OF TASK COST AND PERFORMANCE

- A. CPSC agrees to allow NIST to make adjustments as needed in the distribution of resources, as long as the total cost of the project is not increased and the project objectives are all met.

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TASK	DESCRIPTION OF TASK	EST.COST PER TASK	EST. TIME FOR EACH TASK
Task 1.	Design and construct all apparatus for screening protocol	\$40,000	120 calendar days
Task 2.	Calibrate gas burners and refine all test apparatus to give burning behavior within acceptable heat release rate limits and with good correspondence to full-scale behavior.	\$55,000	150 calendar days
Task 3.	Apply apparatus to multiple samples from SPSC mattress/foundation designs; reduce data and correlate with results from twin size beds based on same designs.	\$15,000	135 calendar days
Task 4.	Complete report on above test protocol development with assessment of its utility as a screening method for mattress/foundations	\$20,000	45 calendar days

XIII. LIAISON OFFICERS

A. NIST PROJECT OFFICER

Thomas J. Ohlemiller
National Institute of Standards and Technology
Building and Fire Research Laboratory
Polymers Building, Building 245
Gaithersburg, MD 20899-8642
Phone: (301) 975-6481

B. CPSC PROJECT OFFICER

Margaret Neily / Allyson Tenney
U.S. Consumer Product Safety Commission
Engineering Sciences Directorate
4330 East West Highway, Suite 611
Bethesda, MD 20814
Phone: (301) 504-0508, ext. 1293 or 1289

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C. CPSC FINANCIAL OFFICER

Consumer Product Safety Commission
Directorate for Administration
Accounting Operations
Room 522
Washington, D.C. 20207

AGENCY PAYMENT OFFICER: Ms. Cecelia R. Smith
Telephone (301) 504-0018 ext. 1137

XIV. COST AND TRANSFER OF FUNDS

The total estimated cost for this research project is estimated at \$130k. Each sponsoring entity is providing a portion of the total funding required for this project.

SPONSOR ORGANIZATION	FY-2001 FUNDING
US Fire Administration	\$75k
Consumer Product Safety Commission	\$55k

Total funding of the \$130k is to be provided to NIST under this LAG. Monthly progress reports will be provided by NIST and any funds not expended will be returned to CPSC.

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XV. FUNDING AND ACCOUNTING DATA

NIST will generate the transfer of funds, upon acceptance of the Agreement, through the On-Line Payment Collection (OPAC) system using the following accounting data:

Transfer From:

CPSC
01 EXOB-PS 4400.00 0121326 25.3101 \$130,000
ALC #61-00-0001
Appropriation Account Fund #6110100

To:

NIST
13-06-0001 13X4650
NIST Taxpayer ID Number: 530-20-5706

XVI. AUTHORITY

Section 27(g) of the Consumer Product Safety Act, (15 U.S.C. 2075(g)),

Section 29(d) of the Consumer Product Safety Act, (15 U.S.C. 2073(d))

XVII. FASA COMPLIANCE

As the servicing agency, NIST agrees to act in full compliance with section 1074 of the Federal Acquisition Streamlining Act (FASA) of 1994, entitled "Economy Act Purchases."

XVIII. INCORPORATING STATEMENT

The Department of Commerce, National Institute of Standards and Technology (DOC/NIST) is an agency of the federal government. Federal acquisition regulations (FAR) clauses should not be contained in a contract between federal agencies. NIST, as an agency of the Department of Commerce, is subject to the department's regulations regarding confidentiality and to the Freedom of Information Act (FOIA). NIST will comply with all laws, statutes, and regulations properly applicable to NIST to the extent permitted by law.

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Approved and Accepted for
National Institute of Standards and Technology

BY:



TITLE:

WILLIAM A. SIROV, JR.
CHIEF, FINANCIAL POLICY DIVISION

DATE:

6/15/2001

Approved and Accepted for
Consumer Product Safety Commission

BY:



TITLE:

Donna Hutton
Contracting Officer

DATE:

6/15/2001